

## **Politics of Water in Pakistan**

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#### **Abstract:**

*Water is the basic requirement to sustain life on the earth. The basic source of water is precipitation. Most of Pakistan is situated in the Indus River Basin. About 50 % of the country is arid and 40 % is semi-arid. Only 10 % of Pakistan falls in humid category. Indus River System is a source of life in Pakistan. For a long time, it had been a source of prosperity of the region and also a cause of perennial quarrel among the provinces of Punjab, Khyber Pakhtunkhwa and Sindh. Being an agrarian economy, Pakistan needs to utilize its water resources at optimum level. This paper is an attempt to analyze the nature of the problem of water sharing among the federating units of Pakistan and efforts for its solution. Analytical approach is adopted in the presentation of arguments.*

**Keywords:** Indus River Basin, Water apportionment, Water conflict, Pakistan

#### **I. Introduction**

Pakistan's economy largely depends on agriculture. Its 35 million acres land is irrigated by canals and tube wells. Water availability for canal withdrawals has progressively increased from 67 to 106 million acre feet (MAF) from 1947 to 1976 to meet the ever growing demand. This increase was achieved by the construction of water reservoir at Chashma, Mangla and Tarbela. After the completion of the Tarbela reservoir in 1976, there has not been further increase in canal withdrawals although population has continued to grow at the rate of 3.00 percent. On the other hand, gross capacity of Tarbela, Mangla has depleted by 4.89 MAF by the year 2004. (Alam, 2006)

The major user of water for irrigation is Indus Basin Irrigation System. To this system total canal supplies were 85 MAF during 1960-61 and irrigated area was about 25.7 million acres. The construction of storage reservoirs enables Pakistan to acquire sufficient capability of river flow regulations. At present the irrigation system of Pakistan is utilizing annually 106 MAF of water. About 22.6 million acres of cultivable land is still available for further irrigated agriculture developments as shown in the following table.

## LAND USE IN PAKISTAN

Sr. No.	CATEGORY	AREA (Million Acres)
1	Geographical Area (Total Area)	196.00
2	Cultivable Land (Area suitable for Agriculture)	77.1
3	Cultivable Area (Irrigated + Barani)	54.5
4	Irrigated Area (By all sources)	44.5
5	Additional Area that could be irrigated (2-4)	22.6

Source: Agricultural Statistics of Pakistan 1997-98

With a large cultivable land base of 77.1 million acres of which only 54.5 million acres are cultivated, Pakistan still has the potential of 22.6 million acres of barren land under cultivation. In post Tarbela 24 years (1976-2000), an additional average of 37.85 MAF escaped below Kotri Barrage. This surplus water in the river system is available only in the months of July to August. No crop can be sown and taken to maturity in this short span of time. So it is dire need of the time to enhance the storage capacity (WAPDA, 2002).

With depleting storage capacity and increasing population, Pakistan is running fast towards the situation of water shortage and threat of famine. In 1951, per capita availability of surface water for irrigation was 5650 cubic meters per year. It had reduced to 1350 cubic meter in 2002. The minimum requirement to avoid being a “water short country” is 1000 cubic meter per capita per year and unfortunately, Pakistan is facing the threat of ‘water short country’ in now. In this critical situation, the conflicts over the water sharing are not un-expected in the diverse society of Pakistan. Distribution of resources among the federating units of Pakistan has always been remained problematic. It is due to lack of trust. This phenomenon is developed partly due to the uneven development in the country and partly because of the variation in the size of population of the constituent units and overrepresentation of dominant group, Punjabis, in the state apparatus. The relatively poorer and marginalized groups based in smaller provinces have certain community concerns and territorial grievances. The province of Punjab has been perceived by smaller provinces as a dominant contender. It has been argued that this relative advantageous position of the Punjabis has annoyed the people of deprived regions and the marginalized communities. The grievances of “ethnic minorities and/or smaller units include the pre-dominance of Punjabis in the civil-military bureaucracy, the comparative development level of Punjab, the ‘contentious’ formula that regulates the distribution of funds to provinces, and distribution of water between Punjab and the smaller units”. (Mushtaq, 2010)

## POPULATION DISTRIBUTION BY LANGUAGE (%)

	Urdu	Punjabi	Sindhi	Pashto	Balochi	Saraiki	Other
Pakistan	7.57	44.15	14.1	15.42	3.57	10.53	4.66
KPK	0.78	0.97	0.04	73.9	0.01	3.86	20.43
FATA	0.18	0.23	0.01	99.1	0.04	-	0.45
Punjab	4.51	75.23	0.13	1.16	0.66	17.36	0.95
Sindh	21.05	6.99	59.73	4.19	2.11	1.00	4.93
Balochistan	0.97	2.52	5.58	29.64	54.76	2.42	4.11
Islamabad	10.11	71.66	0.56	9.52	0.06	1.11	6.98

Source: Government of Pakistan (Population Census Organization, 1998)

However, the Federation of Pakistan has been trying to solve the issue of water apportionment among the federating units for last 65 years and six significant attempts have been made to solve the problem but unfortunately consensus cannot be achieved yet.

## II. Water Resources of Pakistan

Water resources of Pakistan are classified as primary and secondary sources. Important primary resources are rainfall and glacier's melt and secondary resources are surface water and ground water.

### Rainfall

Rainfall is not equally distributed throughout Pakistan. Maximum area of Pakistan is characterized as arid and semi-arid climatic zones. Arid areas are defined as the areas where there is deficiency of rainfall. The whole of Sindh, the southern part of Punjab and the southern part of Balochistan lie in the arid climatic zone. The annual rainfall in these areas is less than 250 millimeters. Agricultural activities are not possible without irrigation. Semi-arid areas in Pakistan cover northern Balochistan, a major part of the northern Punjab and a large part of the Khyber Pakhtunkhwa. The annual rainfall in these areas is ranges from 250 millimeters to 750 millimeters. Only a small area of Pakistan lies in the humid climatic zone. Humid areas are defined as those areas which receive sufficient rainfall. The northern strip of the Punjab, contiguous parts of the Khyber Pakhtunkhwa and a small area around Parachinar falls in humid category. In these areas, rainfall exceeds 750 millimeters. However, farming is not possible even in these areas due to the irregularity of rainfall. About 50% of the total area of Pakistan is arid, 40% semi-arid and only 10% falls in humid category. Pakistan receives rainfall through two main sources: the Monsoon and Western Disturbances (Khan, 2004).

Most of the rainfall which Pakistan receives in summers (July to September) is a result of Monsoons. Since the Monsoons enter Pakistan from the eastern side, eastern parts of the country receive more rainfall. The main Monsoons enter in northern Punjab and the secondary enter in southern Punjab and Sindh. As a result, northern parts receive more rainfall. It sharply decreases towards the Indus plains. Even it drops less than 125 millimeters southwards of Sahiwal (District of Punjab province). The highest rainfall recorded during the Monsoon season is 830 millimeters at Murree (Khan, 2004).

The Western Disturbances enter Pakistan from the western side after passing through Iran and Afghanistan. They lose most of their moisture on the long journey, so they bring only a small amount of rainfall to Pakistan. Western Disturbances start their operation in December and continues up to March. Thereafter they become weak and less frequent. The maximum rainfall recorded in this period is 125 millimeters in the extreme north of the country and minimum is less than 25 millimeters in most of the Sindh and Balochistan (Kureshy, 1993).

### ANNUAL AVERAGE RAINFALL IN DIFFERENT PROVINCES (Millimeters)

Period	Punjab	Khyber P. K	Sindh	Balochistan	Pakistan
April-September	254	308	131	72	158
October-March	79	228	16	63	80
July-September	202	279	109	50	118
Annual Average	333	536	147	135	238

Source: (Alam, 2006).

### Glaciers

Pakistan is blessed with large amount water in the form of glaciers. Snow fall is a common phenomenon in the northern highlands. The Great Himalayas, the Karakorum and the Hindu Kush Mountain ranges, with the highest altitude of the world (Average height 20000 feet), have the largest ice bodies in the world after polar areas. The total area covered by the glaciers is about 2250 Km<sup>2</sup> which becomes a major source of river run off in summers. The Karakoram and the Great Himalayas are the highest mountain ranges in the world. The largest numbers of the highest peaks (more than 20) are located in a small area of the Karakoram mountain range. K-2, the second highest mountain in the world (8611 meters) is located in this mighty range. The Karakorum Range is extensively covered with snow. Locally, these mountains are called as Mustagh (Ice Mountains).

The glaciers originating in this region are characterized with high flow rate, ranging from 100 meters to 1000 meters per year. Due to the great altitude, there are many glaciers found in this region and at least ten of them have considerable length.

SELECTED GLACIERS OF PAKISTAN			
GLACIER	LENGTH (KM)	MOUNTAIN RANGE	RIVER
Siachen	72	Karakorum	Shyok
Biafo	62.5	Karakorum	Braldo
Hispar	61	Karakorum	Hunza
Batura	59	Karakorum	Hunza
Sakiz Jarab	30.4	Hindu Kush	Kunhar
Tirich Mir	22.4	Hindu Kush	Kunhar
Rupal (S)	17.6	Himalayas	Astor
Rupal (N)	16	Himalayas	Indus
Rich	16	Hindu Kush	Kunhar
Phangatori	15.5	Himalayas	Indus

Source: (Khan, 2004).

### Surface Water

The rainfall and the glacier's melt develop water channels (Rivers) on the surface of the earth. Rivers receive water during the all of their passage and discharge it into adjacent ocean or sea. In case of Pakistan, Indus River System originates in the northern highlands due to the heavy rainfall and snow melt and after passing through the Indus plains discharges it's run off into the Arabian Sea near Karachi (The largest city, sea port of Pakistan and the capital of Sindh province).

It is estimated that the Indus River System was created some fifty millions years ago when the Indian plate (Gondwanaland) first collided with Eurasian plate (Angara land). The Tethys Sea was located between the two plates which was shallow and sandy. It was up-folded to form the great Himalayan Mountains in the Mesozoic era (It is a period of geological time from about 245 to 65 million years ago). The unbroken snow of the great Himalayas became primary source of water to the Indus River System.

River Indus is the largest river of Pakistan. It runs through the hub of the country. Mostly Pakistan is located in the basin of the Indus River System. River Indus itself occupies a key position in the entire system. After crossing Himalayan Mountain range at

Bunji it turns south-west and enters Pakistan. Its important eastern tributaries (the Jhelum, the Chenab, the Ravi, the Sutlej and the Bias) join it at Punjnad and become the part of its course. On the western side River Kabul is its prominent tributary which drops into it near Attock Bridge (a city of Punjab province).

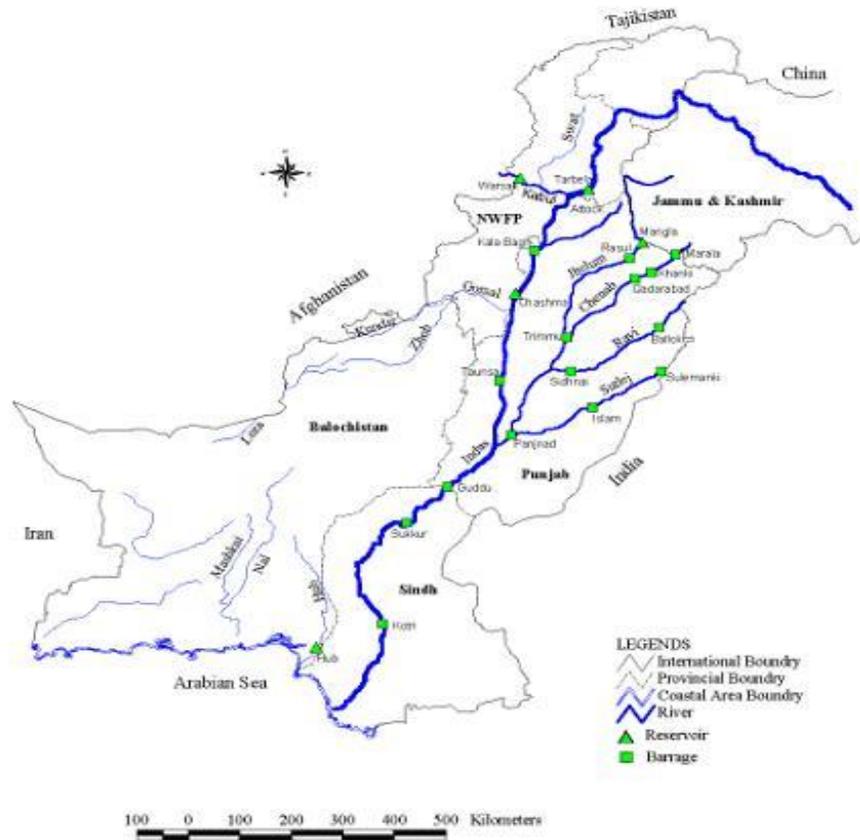
### **Ground Water**

The ground water aquifer in the sweet zone of the Indus Basin is a reliable and rechargeable secondary source. It plays a major role in providing fresh water for irrigation. It has been used for centuries for animal and domestic purposes but for the last two decades, it has been being extensively used with the help of the shallow tube wells operated by the electric, diesel and mechanical power. More than 0.6 million tube wells are operating in the Indus Basin (Brisco & Qamar, 2007).

### **III. Water Conflicts in Pakistan**

Pakistan is mostly located in the arid and semi-arid climatic regions. Only 10 percent of the country is situated in humid zone. Although Pakistan does not enjoy heavy rainfall but this rainfall is also characterized by the variation from season to season and region to region. It is also very important to note that Pakistan is an agricultural country and its economy heavily depends on this sector. Agriculture is playing a multifaceted role in the economy. It generates 23 % of the Pakistan's national income, accommodates 42 % of the total workforce and responsible about 60-70 percent exports. About 68 % of population living in the rural areas is directly or indirectly depends on agriculture for their livelihood. But agricultural practices cannot be done without the sufficient availability of fresh water. In Pakistan, large part of the agriculture is supplied with irrigation water through the Indus River System, which has the largest canal network in the world (Khan, 2004). Indus River System on average brings about 154.3 MAF (Million Acres Feet) of water annually. About 104.5 MAF is diverted for irrigation purposes. About 29 million acres land is irrigated by the Indus River System in Pakistan, which is 58 % of the total cultivated area of 50 million acres. Indus Basin Irrigation System comprises of a large network of reservoirs, barrages, canals and water courses. Detail is given as under;

Large Reservoirs	2 (Mangla and Tarbela)
Small Dams	2 (Warsak and Simli)
Other small water projects	81
Barrages	19
Inter-river link canals	12
Canals	44 (23 in Punjab, 14 in Sindh, 5 in Khyber Pakhtunkha and 2 in Balochistan)
Total length of the canals	56073 Km
Water Courses	Total 107,000 (55,000 in Punjab, 40,000 in Sindh, 10,000 in Khyber Pakhtunkha and 2000 in Balochistan) (Khan, 1995)



Source: (Bhatti, 2011)

The Indus River System is a source of prosperity of the Indus River Basin for a long time but is also a major cause of perennial conflicts among the various identities of the region. The first conflict over the water sharing and management in the Indus River Basin was originated when the Sutlej Valley Project was being planned in the Punjab in the earliest part of the 20<sup>th</sup> century. Objections were raised by the various units on the availability of water for irrigation supplies. Bombay province (which was then included Sindh) protested against the construction of the Sutlej Valley Project because it feared that withdrawals for the project would adversely affect the operation of the Sukkar Barrage canals. Bahawalpur State objected against any supplies being given to the Bikaner state on the ground that the supplies were insufficient even for the needs of the riparian areas of the Punjab and Bahawalpur State. At the same the Punjab raised objections against the construction of Sukkar Barrage Project, which was also under consideration of the government for sanction.

In the decade of 1920s, just after the World War 1, the Government proposed several projects of water diversion for the irrigation purposes in the different parts of the Indus River Basin. So the increasing withdrawals of the river supplies created problems of water sharing and management. It called for the apportionment of the rivers waters among several riparian by the Government. Six significant attempts were made to reach an agreement on water sharing and management in the Indus River Basin, naming Sutlej Valley Tripartite Agreement 1920, Indus Discharge Committee 1921, SVP Inquiry Committee 1932, Anderson Committee 1935, Indus Commission 1942 and Sindh-Punjab Draft Agreement 1945 (Khan S. A., 1991).

After the partition of Indian Sub-Continent into two independent sovereign states of Pakistan and India on 14<sup>th</sup> of August, 1947, the situation was totally changed. Now India became the upper riparian and Pakistan as lower riparian. Dispute over the water sharing of the Indus River System erupted when India stopped water in the every canal flowing into Pakistan from the Madhopur and Ferozpur headworks on 1<sup>st</sup> of April, 1948. During the first five years of the partition, the waters of Indus Rivers System were apportioned under the Inter-Dominion Accord (Pakistan considers that it was a joint statement) of May 4, 1948. This accord required India to release sufficient water to Pakistani areas of the Indus Basin in return for annual payments from the Government of Pakistan.

After the establishment of Pakistan, province of the Punjab became upper riparian and the Sindh as lower riparian. During the decade of 1950s, the allocation of water to the provinces of Pakistan was substantially based upon the Draft Sindh-Punjab Agreement of 1945 (Khan S. A., 1991). But the Indus Water Treaty of 1960 brought a drastic change in the water resources of Pakistan and allocations of water according to the Draft Sindh-Punjab Agreement became totally invalid. In absence of any final agreement on water sharing among the provinces, they received irrigation supplies through ad hoc distribution arrangements which were made by the Federal Government for each session/period of the year. This only revived bitterness among them every time they met and wrangled over the ad hoc allocations. Due to the seriousness of the problem, the Government of Pakistan appointed several committees and commissions to reach the final agreement.

**a) Akhtar Hussain Committee (1968)**

After the completion of Mangla Dam and other important replacement works, the Government of Pakistan appointed Water Allocation and Rates Committee in 1968 under the chairmanship of Mr. Akhtar Hussain. The Committee was asked to recommend barrage allocations, reservoir release pattern and draw down levels. It was also asked to examine the use of ground water in relation to the surface water deliveries. The demands of Khyber Pakhtunkhwa and Balochistan were small and they were not the part of the dispute. The major disputed parties were Punjab and Sindh. Before submission of the report by the Committee, the Council of Administration consisting of governors-designate of four provinces on 26<sup>th</sup> June, 1970 requested the Federal Government to appoint a commission for the allocation of Indus waters. Akhtar Hussain Committee submitted its report to the Governor of the West Pakistan on June 30, 1970. Next day (1<sup>st</sup> July, 1970) one unit in West Pakistan was dissolved and report could not receive attention of the Government, which had already decided to appoint another commission (Malik, 2011).

**b) Fazle Akbar Committee (1970)**

A committee was set up by the Government of Pakistan on 15<sup>th</sup> October, 1970 for the apportionment of the waters of the Indus River System among the four provinces of West Pakistan. It was chaired by the former judge of Supreme Court of Pakistan Mr. Justice Fazle Akbar. The Committee was to recommend the apportionment of the waters of the Indus River System for both flow supplies and stored water of the existing as well as the projected storages among the four provinces of West Pakistan, consequences of the Indus Water Treaty of 1960, availability of groundwater and its coordinated use with flow supplies and reasonable water requirements of the provinces for agricultural, industrial and urban use (Khan S. A., 1991).

The terms of reference and the report of the Committee introduced first time a new element in water resource calculation: that of ground water. The member of the Committee could not build a consensus either on the apportionment of the waters or even on purely technical issues. So, Mr. Justice Fazle Akbar himself formulated recommendations and submitted to the Government of Pakistan in November, 1971. Recommendations of the Mr. Justice Fazle Akbar were discussed at the Governor's Conference in October, 1972 but no decision could be finalized. No further attempts to resolve the issue with the mutual consultations of the provinces could succeed. So, the Federal Cabinet deferred the issue for the time being in its meeting of 13<sup>th</sup> January, 1975. In the meantime ad hoc distribution of water was ordered and it was continued till the enforcement of Water Apportionment Accord of 1991.

**c) Indus Water Commission (Anwar-ul-Haq Commission)**

On the recommendation of the Council of Common Interests, which discussed the apportionment issue in its meeting on 31<sup>st</sup> December, 1976, the President of Pakistan constituted a commission in 1981. It was comprised of Chief Justice of Pakistan, Mr. Justice Anwar-ul-Haq as its chairman and chief justices of four High Courts as its members. The commission was asked to finalize its report within nine months but it could not finalize its recommendations. So, the President consulted on the issue with the Council of Common Interests, Ministry of Fuel and Power and the Governors of the four provinces. After consultations, a reference was made by the Federal Government on this point to the Chief Justice of the Supreme Court, who analyzed the position which was obtained in the case of 27<sup>th</sup> June, 1982. Ultimately, he suggested to the President that the distribution of waters of the river Indus and its tributaries may be based on the report of the Fazle Akbar Committee, which may be adopted with some modifications and adjustments to be made by the appointing an Indus River Authority (Khan S. A., 1991).

**d) Haleem Committee (1983)**

The President of Pakistan directed the Chief Justice of Pakistan Mr. Justice Muhammad Haleem on 3<sup>rd</sup> March 1983 to examine issue of apportionment of waters on a fair and equitable basis with the assistance of Chief Justices of High Courts of the four provinces. The Committee submitted its report to the President on 15<sup>th</sup> of April 1983 with a dissent note of the Chief Justice of Peshawar High Court. This report was remained pending till the Water Apportionment Accord came into effect in 1991.

**e) Water Apportionment Accord (1991)**

Indus Water Treaty of 1960 between India and Pakistan came into effect on April 1, 1970 and this made the issue of water apportionment more complex among the four

provinces of Pakistan. Since the enforcement of Indus Water Treaty, ad hoc arrangements were being made for the every season/period. Permanent settlement of the issue was a growing need of the time. So the provinces highly showed mutual goodwill and accommodation in resolving the long standing dispute of water apportionment and Water Apportionment Accord was signed by the Chief Ministers and other representatives of the four provinces on 16<sup>th</sup> of March 1991 at Karachi. It was approved by the Council of Common Interests on March 21, 1991.

According to the Water Apportionment Accord share of the each province both for Rabi and Kharif and allocation of balance supplies was allocated in MAF as under;

PROVINCIAL WATER SHARES				
Provinces	Kharif	Rabi	Total	Balance Supply Shares* (%)
Punjab	37.07	18.87	55.94	37
Sindh**	33.94	14.82	48.76	37
Khyber Pakhtunkha (a)	3.48	2.30	5.78	14
(b) Civil Canals***	1.80	1.20	3.00	
Balochistan	2.85	1.02	3.87	12
Total	77.34	37.01	114.35	100

\*Including flood flows and future storages.

\*\* Including already sanctioned urban and industrial uses for Metropolitan Karachi.

\*\*\* Ungauged Civil Canals above the Rim Stations in Khyber Pakhtunkha.

According to a provision of the Water Accord, an independent body of Indus River System Authority (IRSA) was established by an act of Parliament in 1991. It comprised of five members, one from each province and one from Federal Government. Chairmanship of the Authority was for the tenure of one year by rotation. Its main function is to implement the Accord. IRSA determines the shares of the available supplies for each province for each period/season according to the Water Apportionment Accord and WAPDA releases supplies accordingly from the reservoirs.

IRSA operated fairly and satisfactorily for a decade but in the last decade releases from Mangla and Tarbela reservoirs fell short of requirements due to the conditions of droughts and sedimentation of the reservoirs. In this critical situation, it was very difficult for IRSA to satisfy the demands of the all counterparts and it faced severe criticism. Regional politics of water came into play and even Accord itself had been objected particularly by the province of Sindh.

#### IV. Differences over the interpretation of Water Accord

First objection raised by the Sindh is that Accord has deviated from the internationally and historically accepted criteria of water distribution on the basis of equitable apportionment and allocation. It allocated 7.61 MAF more water to Punjab and to Sindh nothing, when it is compared to the allocations under the Draft Sindh-Punjab Agreement of 1945.

Second difference is over the section 6 of the Water Accord which reads: “The need for storages, wherever feasible on the Indus and other rivers was admitted and recognized by the participants for planned future agricultural development”. (Khan S. A., 1991) This is most important and serious water related issue which Pakistan has been

facing for last three decades. The Federal government and government of the Punjab are of the opinion that this section amounts an agreement to construct new dams on the Indus System like Kalabagh and Bhasha. Since the feasibility and detailed engineering studies of the Kalabagh Dam has already been completed, so construction should be started without any further delay. On the other side provinces of Sindh and Khyber Pakhtunkhwa have serious objections to this project and their assemblies have passed several resolutions against its construction.

Thirdly, clause 7 of the Accord recognizes the need of fresh water to flow into the sea to maintain the ecological balance of the mangroves forests but does not establish the quantum of fresh water needed, nor does it binds the signatories to a time schedules to find out such quantum.

Fourth difference is on the section 14(b) which reads: "The record of actual average system uses for the period 1977-82 would form the guide line for developing a future regulation pattern. These ten daily uses would be adjusted pro-rata to correspond to the indicated seasonal allocations of the different canal systems and would form the basis for sharing storages and surpluses on all Pakistan basis". (Khan S. A., 1991)

Pakistan has faced shortage of Indus water due to drought spells during the last two decades. During these periods of water shortage Punjab and Sindh differed seriously on their water shares. Punjab argues that it had agreed to a reduced share for itself in Water Accord of 1991 (2.7% less than its historical share) because of a 'package deal' under which additional storages were also to be constructed. Since, additional storages have not been constructed, so it should be given its share on pre-1991 historical basis. On the other side province of Sindh bitterly opposes this position and considers Water Accord of 1991 as sacrosanct. This clause makes actual withdrawals as the basis of not only the Accord but the future allocations and it rejects the Sindh's claims. Sindh argues it is not given sufficient water in the months of April, May and June, so that crop intensity in the Kharif season kept artificially depressed and, therefore, demand for water becomes low in the season overall. At the same time, by keeping Chashma-Jhelum and Taunsa-Punjab link canals open, Punjab artificially kept its withdrawals higher.

Fourthly, another offending element for Sindh is clause 12 which allocates surplus flood water for LBOD rather than a specific allocation. Sindh greatly suffers from water logging and salinity. LBOD is a major project for drainage of effected lands. Sindh was promised additional water that was not released (Kazi, 1998).

The main failure of the Accord is that it does not resolve the differences between Punjab and Sindh on the interpretation of the technical matters like historical allocations from the source or from the sources. For example, Sindh argues that according to the principle of priority of historic allocations on the same river, the barrages of Sindh have priority the post Indus Water Treaty barrages in Punjab. To this, Punjab contends that the said Treaty jumbled up the source of water supply. Therefore, the waters of the system should be considered as if coming from a single source, in which case the Islam and Punjab barrages in Punjab, being older, have priority over the barrages in Sindh that were built later.

## V. Conclusion

Lack of trust among the federating units particularly between Punjab and Sindh is at the heart of water issues. All conflicts stem from this crisis. Sindh as lower riparian, always raises questions about upper canals withdrawals and feels that it is being deprived of its share of water by Punjab. On the other hand, Punjab considers 'surpluses of 35 to 45 MAF per year' which pass downstream Kotri as wastage and argues that it should be stored and put to use. This gap of trust can be minimized to evolve a sound conflict resolution mechanism among the provinces. This can be done by two possible ways;

- a) Council of Common Interests (CCI) should be activated and it should play its constitutional role to harmonize relations among the provinces.
- b) Parliament and Parliamentary Committees should play their rightful role to minimize the trust gap.

Water Apportionment Accord of 1991 is the only accepted framework available for regulating the shares of river supplies. It must be implemented faithfully in letter and spirit to create the environment of trust and harmony among the riparian units of the federation of Pakistan. Complaints by the lower riparian water users are not only existed in Pakistan but it is a common practice throughout the globe. However, Punjab as upper riparian should play a positive and accommodative role to meet the genuine demands of other riparian particularly the Sindh.

It is obvious that the primary cause of the problem is the shortage of water supplies in the Rabi and early Kharif periods. The Accord would not be effective if there was no water to apportion. It underscores the need of reservoirs to conserve the surplus summer flows like Kalabagh Dam Project as approved by the Water Apportionment Accord.

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